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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,532	01/27/2004	Yasuyuki Shirasaka	1248-0691P	4091
2292 7590 07/09/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER SHINGLETON, MICHAEL B				
ART UNIT 2815		PAPER NUMBER		
NOTIFICATION DATE 07/09/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/764,532

Applicant(s)

SHIRASAKA ET AL.

Examiner

Michael B. Shingleton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 2-8 and 13-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 9-12 and 20-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/ISAC)
Paper No(s)/Mail Date 3/08 and 4/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

The IDS and the request for RCE both received on 3-4-08 made this new office action necessary. Previously around or about 1-4-07 an election of species was made and once the independent claim was determined to be allowable the dependent claims are rejoined and issued on or about 1-7-2008. This restriction is still in effect and thus since at least independent claim 1 must now be rejected over the newly submitted art, many of the claims including claim 2 are withdrawn as being directed to the non-elected invention. The claims directed to non-elected inventions are claims 2-8, and 13-19. The elected invention being that of Figures 2 and 3 and as stated in previous office actions the resistive elements of this elected invention cannot be and are incapable of being selected. The resistors in Figures 2 and 3 remain in circuit always and thus always are selected no matter which one of the two amplifiers OP3 or OP4 is being supplied with a bias voltage. There is no function or means that allows for the selecting of resistors in either Figure 2 or Figure 3. The only Figure that has the function of selecting resistors is that of Figure 6, note the switches SW1 and SW2 that can perform the selecting function (Also note claim 8 that recites the selecting function as one that is performed by a switch.). No matter the case, claim 2 is directed to a non-elected invention, an invention that has means that enables the amplifier circuit be capable of selecting. Another way to say it is that the elected invention simply does not have any structure that is capable of selecting. Claim 1 was allowed on or about January 7, 2008 because the prior art of record at that time did not show or suggest the temperature coefficient being made zero for each resistor group that corresponds to each wavelength for any temperature. Zero means zero and one could make the same circuit like that of Figures 2 and 3 having the same elements except that the temperature coefficients of the resistors that make up these elements would add up to a 0.00001 Ohms per degrees F or 0.00001 temperature coefficient, i.e. this would not equal zero and accordingly this would not infringe on applicant's claimed invention. Page 3 of the half or qtr./incomplete translation of the '507 Japanese reference submitted by applicant states that the total temperature coefficient is made to be zero. Thus this seeming impossible task of obtaining zero, i.e. exactly zero, has been achieved by others in the prior art as evidenced by the incomplete translation of the '507 Japanese reference submitted by applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 9-12 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiroshi Japan 11-041,036 (Hiroshi) in view of Osamu Japan 3-235,507 (Osamu).

Figure 1 and the relevant text of Hiroshi disclose a multiple stage photodetector arrangement. The photodetecting element 2 has a range of frequencies that it will detect even if that range is very very small. Thus Hiroshi is capable of detecting optical signals of plural types of wavelengths. The so called "former stage amplifier" i.e. the first stage is formed by element 3 and the so called "latter-stage amplifier" is formed by element 4, i.e. the second amplifier. The first amplifier has a feedback resistor 7 and there are resistors composed of at least elements 9 and 10 and the unmarked series resistor between the first and second stages that determines sensitivity. Since there are a plurality of resistor groups that each group contain resistors one can signify for example that the feedback resistor 7 and the resistor 9 forms a group and the feedback resistor 7 and the resistor 10 forms another group. No structure is recited by the claims other than each group is to have the feedback resistor as part of that group. Also the limitation that the plurality of resistor groups corresponds to each of the plural types of wavelengths is clearly met as the device of Hiroshi as Hiroshi clearly functions for at least slightly different values of optical input frequencies. Also the term corresponds is a broad limitation and applicant should note that the examiner cannot read limitations into the claims that are just not present. Because of the use of these terms that really do not set forth structure and the implied function is not specific the examiner believes that applicant may be reading more into the this limitation than is present because the applicant maybe reading something like 780nm and 650 nm for two different frequencies, i.e. again the applicant maybe reading limitations from the specification into the claims that are just not in the claims. However, this limitation is a very broad limitation and the claims are in general void of much structure and these claims do not exclude frequencies that are extremely close in value. Plus what structure is being recited by the term "corresponds"? The term corresponds is void of structure. Paragraph 19 of the translation of Hiroshi states that the temperature coefficient can be made or becomes "small". Yes, it is desirable to have the smallest change in resistance for the change in temperature and preferably it is well-know to want to have this change be zero. The well-know desirable goal of zero for the overall temperature coefficient is hard to achieve.

The examiner has only been given a incomplete translation of the Osamu by applicant, however, the section that has been given relates to a multi-stage amplifier and more specifically Osamu is very

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specific that the temperature coefficients of the resistors that make up the feedback resistors etc. of the amplifier circuit can be chosen with enough accuracy that a temperature coefficient of zero can be obtained. That is what Osamu states. See page 3 of the translation of Osamu. This again is the goal in many circuits to have a circuit whose overall temperature coefficient is of such a small value, ideally zero, that there is no overall effect of temperature on the circuit.

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to select accurate enough temperature coefficients of the resistors in the Hiroshi circuit to be such that an overall temperature coefficient of zero is obtained as taught by Osamu.

With respect to claims like 9-11 as it relates to the subject matter of diffused/polysilicon resistors that can have different temperature coefficients and different kinds of polysilicon.

The prior art is silent on the exact construction of the resistor elements. However, the constructions as recited by the claims are conventional constructions. No unexpected results are obtained by using these constructions.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used resistors of different temperature coefficients of different kinds of polysilicon in the arrangement made obvious above because as the Hiroshi and Osamu references are silent on the exact construction of these resistors one of ordinary skill in the art would have been motivated to use any art-recognized equivalent resistors such as the resistors of different temperature coefficients or different kinds of polysilicon as recited by the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael B. Shingleton whose telephone number is (571) 272-1770.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker, can be reached on (571) 272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair->

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direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script that reads "Michael B. Shingleton". The signature is written in dark ink on a light background.

MBS
May 11, 2008

/Michael B. Shingleton/
Michael B Shingleton
Primary Examiner
Group Art Unit 2815